

CLAIMS

1) Method for establishing the HLA-G transcription profile of a solid tumour with a view to selecting a treatment which is suited to said tumour and/or with a view to monitoring the evolution of said tumour, characterized in that it comprises:

- (i) - the removal of a tumour sample;
(ii) the extraction of the mRNA;
10 (iii) the reverse transcription (RT) of said
RNA;
(iv) the successive or simultaneous
amplifications of the cDNAs obtained in (iii), in the
presence of primers specific for each HLA-G isoform,
15 and the analysis of the amplification products obtained
by electrophoresis and/or specific hybridization and
(v) the establishment of the HLA-G
transcription profile of said sample.

20 2) Method for establishing the HLA-G expression profile of a solid tumour with a view to selecting a treatment which is suited to said tumour and/or with a view to monitoring the evolution of said tumour, characterized in that it comprises:

- (i) the removal of a tumour sample,
25 (ii) the preparation of a histological section from said sample,
(iii) the labelling of the cells of the sample obtained in (ii) with antibodies specific for HLA-G membrane-bound and soluble isoforms, and
30 (iv) the establishment of the HLA-G expression profile of said sample by detecting the labelled cells.

3) Method for establishing the HLA-G expression profile of a solid tumour with a view to selecting a treatment which is suited to said tumour and/or with a view to monitoring the evolution of said tumour, characterized in that it comprises:

- (i) the removal of a tumour sample,

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(iv) the bringing of the lysed cells into contact with various antibodies directed against the class I HLA antigens so as to possibly form HLA-G isoform/antibody complexes, and

(v) the establishment of the HLA-G expression profile of said sample by detecting the complexes formed in step (iv).

4) Method for selecting factors for regulating the transcription and/or the expression of HLA-Gs by tumour cells, this method being characterized in that it comprises:

(i) the removal of a tumour sample,

(ii) the isolation of the tumour cells from said sample,

(iii) the primary culture of the tumour cells obtained in (ii),

(iv) the addition of the substance to be tested,

(v) the visualization of the effect obtained by establishing the HLA-G transcription and/or expression profile of said tumour cells after treatment with said substance to be tested, and

(vi) the testing in vitro of the effect of the treatment on the antitumour response.

5) Antitumour vaccine which can be used for solid tumours expressing at least one HLA-G isoform, characterized in that it is selected from the group consisting of autologous tumour cells and a soluble HLA-G5 antigen or a fragment thereof.

6) Vaccine according to Claim 5, characterized in that when said vaccine consists of tumour cells from the individual to be treated which express at least one HLA-G isoform, said cells are modified so as to induce the production of anti-HLA-G antibodies.

7) Vaccine according to Claim 5, characterized in that said soluble HLA-G antigen, or a fragment thereof,

is coupled to a suitable protein and optionally combined with an adjuvant such as aluminium hydroxide or calcium phosphate.

8) Antitumour composition which can be used for
5 solid tumours expressing at least one HLA-G isoform, characterized in that it consists essentially of anti-HLA-G antibodies.

9) Antitumour composition which can be used for
10 solid tumours expressing at least one HLA-G isoform, characterized in that it consists essentially of at least one factor for regulating the transcription and/or the expression of HLA-Gs.

10) Composition according to Claim 9, characterized
15 in that said regulation factor is selected from the group consisting of the regulation factors obtained using the method according to Claim 4, factors which are antagonists of HLA-G activation agents, antisense nucleic acids and hormonal inhibitors of the transcription and/or of the expression of said HLA-Gs.

20 11) Products containing anti-HLA-G antibodies and factors for regulating the expression of HLA-Gs as combination products for simultaneous or separate use, or use which is spread out over time, in the treatment of solid tumours expressing at least one HLA-G isoform.

25 12) Method for studying the transcription and/or the expression of the HLA-Gs, characterized in that it consists of a cell culture which is established from a tumour tissue biopsy.

30 13) Method for monitoring the evolution of a tumour expressing HLA-G, characterized in that it comprises assaying the soluble form of HLA-G in the sera of patients, as a prognostic factor for tumour dissemination or for the capacity of a tumour to form metastases.

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